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REVIEW

Nutritional support in chronic renal failure: systematic review

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Abstract—Background and aim: The purpose of this systematic review was to locate and assess in patients with chronic renal failure (CRF) the effect of nutritional support on nutritional status, quality of life, and survival. We also aim to review the reviews of nutritional support.

Methods: We searched the Cochrane Library version of MEDLINE (from 1966 through 2009) and EMBASE (from 1980 through January 2009) using a comprehensive search strategy. Two independent reviewers (from DATS international) were trained and calibrated for clinical trials. A total of 552 studies were assessed. Following methodological review (primary reviewer), 21 studies were selected for full review. Two independent reviewers (secondary reviewers) assessed the quality of the evidence on the nutritional intervention, outcomes, and methodological quality.

Results and conclusions: Low and very low power data associated with specific enteral supplements are indicated in favor of improved nutritional status, quality of life, and survival in patients with chronic renal failure. Low power data associated with specific parenteral supplements are indicated in favor of improved survival. Low power data associated with a protein-restricted diet in diabetic nephropathy is only indicated in type 1 diabetics without proteinuria (grade A recommendation). Low power data associated with specific enteral supplements are indicated in favor of improved survival in patients with chronic renal failure (grade A recommendation).

Key words: nutrition, diet, chronic renal failure systematic review

Introduction

The primary goal of treatment in patients with chronic renal failure (CRF) is to slow the progression of renal function to achieve adequate control of metabolic disorders affecting as supportive quality of life. Low protein diet (LPD) is a key component of the nutritional support in these patients. Its main goal is to reduce uremic symptoms or by improving azotemia through reduced hydrogen ion production, organic acid production, and urea production. Low protein diet (LPD) has been used for a large number of studies have been published. Some of these studies have suggested that LPD may slow the rate of progression of renal function and improve nutrition. The use of treatment of end-stage renal disease (ESRD) patients with LPD has been controversial because allowing these patients to consume a sufficient amount of renal replacement therapy with hemodialysis and peritoneal dialysis, and maintaining nutritional status (with justifying the use of protein-restricted diet).

The role of a low-protein diet to slow the rate of progression of renal failure remains controversial. Both clinical and laboratory data suggest that dietary protein consumed in excess contributes to renal injury. Clinical trials have studied. Over the last 20 years have shown that LPD, with or without supplementary ketoacid compositions, can delay the progression of renal insufficiency, reduce the need for renal replacement therapy, improve nutritional status, and improve the quality of life. Nutritional support is indicated because treatment costs and negatively affect the quality of life of these patients.

Nutritional support and nutritional status are considered responsible for progression of renal disease in diabetic nephropathy patients. Nutritional support is indicated because treatment costs and negatively affect the quality of life the most commonly proposed pathogenic mechanism. Nutritional support and nutritional status are considered responsible for progression of renal disease in diabetic nephropathy patients. Nutritional support is indicated because treatment costs and negatively affect the quality of life. Nutritional support is indicated because treatment costs and negatively affect the quality of life. Nutritional support is indicated because treatment costs and negatively affect the quality of life